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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,523	12/07/1999	TSUYOSHI MAEDA	9319S-000114	1024

7590 11/20/2002  
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EXAMINER

NGUYEN, DUNG T

ART UNIT PAPER NUMBER

2871

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/445,523

Applicant(s)  
Maeda

Examiner  
Dung Nguyen

Art Unit  
2871



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- \*15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4-6
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119 (a)-(d). The certified copy has been filed in parent Application No. 3, filed on 12/07/1999.

### *Specification*

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Applicants submitted prior art, Fukuyoshi, JP 6-313890, in view of Leupp et al., US Patent No.

3,978,580.

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Regarding claims 1-3 and 11, Fukuyoshi discloses a rear plate for a liquid crystal display (LCD) device (figure 3) comprising:

- . a plurality of transparent electrodes (4) spaced from each other in a horizontal direction when seen in a normal direction of a substrate (1);

- . a plurality of reflective films (2) spaced from each other in correspondence with the plurality of transparent electrodes (4), wherein the plurality of reflective films are not formed in area opposing at least some part of a space between the plurality of transparent electrodes and not electrically connected to each other (see figure 3).

- . a color filter (5R/5G/5B) formed on the substrate (1) opposing to the plurality of the transparent electrodes (4) without surrounding light shielding.

Regarding claims 4-5 and 12, Fukuyoshi also discloses an insulating film (6) disposing between each the transparent electrode (4) and each the reflective film (2).

Although Fukuyoshi does not disclose an opposite substrate (e.g, front substrate) and a liquid crystal layer, such substrate and liquid crystal layer are conventional in an LCD art as shown in the Leupp et al. reference (see Background of the Invention). Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to complete the Fukuyoshi's LCD device by forming a front substrate opposed to the rear substrate and forming a liquid crystal layer therebetween as shown by Leupp et al. in order to complete an LCD device (see col. 1, ln. 63 to col. 2, ln. 2).

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5. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants submitted prior art, Fukuyoshi, JP 6-313890, in view of Leupp et al., US Patent No. 3,978,580, further in view of Flynn, US Patent No. 5,815,228.

Regarding claims 6 and 13, the modification to Fukuyoshi discloses the claimed invention as described above except for a transfective films and an illuminating apparatus. Flynn does disclose a transfective film (33) can be formed instead of a reflective film (32) as shown in figures 3B and 3C as well as an illuminating apparatus (light source 34) in an LCD device. Therefore, it would have been obvious to one skilled in the art at the time of the invention was made to form the Fukuyoshi's device having a transfective film instead of a reflective film as shown by Flynn in order to obtain an LCD device being operated in hybrid mode (i.e., transmissive and reflective modes) (see paragraph bridging col. 1 and col. 2).

6. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants submitted prior art, Fukuyoshi, JP 6-313890, in view of Leupp et al., US Patent No. 3,978,580, further in view of Kanbe et al., US Patent No. 4,682,858.

Regarding claims 7 and 9, the modification to Fukuyoshi discloses the claimed invention as described in paragraph 4 except for image supplying means and a plurality of switching elements. Kanbe et al. do disclose that an LCD device can be formed as a passive matrix electrode structure (e.g., the Fukuyoshi's device) or an active matrix electrode structure (i.e., structure having an image signal lines and switching elements, namely thin film transistors) (see col. 1, lines 40-43). Therefore, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to modify the Fukuyoshi's LCD device as an active matrix LCD device as shown by Kanbe et al. in order to avoid crosstalk occurs in the passive matrix LCD device (col. 1, ln. 49).

7. Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants submitted prior art, Fukuyoshi, JP 6-313890, in view of Leupp et al., US Patent No. 3,978,580, further in view of Flynn, US Patent No. 5,815,228 and Kanbe et al., US Patent No. 4,682,858.

Regarding claims 8 and 10, the modification to Fukuyoshi discloses the claimed invention as described in paragraph 5 except for image supplying means and a plurality of switching elements. Kanbe et al. do disclose that an LCD device can be formed as a passive matrix electrode structure (e.g., the Fukuyoshi's device) or an active matrix electrode structure (i.e., structure having an image signal lines and switching elements, namely thin film transistors) (see col. 1, lines 40-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Fukuyoshi's LCD device as an active matrix LCD device as shown by Kanbe et al. in order to avoid crosstalk occurs in the passive matrix LCD device (col. 1, ln. 49).

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The Examiner can normally be reached on Monday-Thursday

If attempts to reach the Examiner by telephone are unsuccessful, The Examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7730 for regular communications and 703-308-7726 for After Final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
11/15/2002



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